

A NEW SPECIES OF VOLUCELLA (DIPTERA).

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This material was reared by the writer at the Eastern Field Station, Falls Church, Virginia.

This species runs to *Volucella anna* in Williston's Synopsis but can be easily separated by the following characters:—the color and size of the antennae; the length and outline of the face and the infuscation of the wing.

The side view of the face and the infuscation of the wing of *Volucella anna* are shown in the plate for comparison and are drawn from the type specimen. The type does not show any hairs on the basal section of the second vein.

***Volucella nigra***, new species.

(Plate 13, Figs. 1-6.)

*Male*.—Face entirely black, shining, with a yellowish brown pruinose area on the upper part of the facial depression below the antennae; a long narrow area (in certain lights) along each side of the facial tubercle is dull and a dull brown stripe on each side of the facial projection reaching from the eye to about half way to the tip at the lower end of the face; hair on face and front black; that on the front and a small area on each side of the face below the antennae is long; facial tubercle with short, black, bristly hairs. Antennae entirely black; third joint not more than twice as long as the greatest width—fig. 5. Eyes contiguous, densely pilose with brown pile. Thorax and scutellum black, shining, in certain lights very faintly bluish; the pile and hairs black; on the edges the hairs are longer while those on the edges of the thorax are more like macrochaetae. Abdomen black, shining, with a more bluish reflection (the blue is similar to new blue); the first segment and a narrow area along the base of the second segment is brownish in color; the hairs on the abdomen black, increasing in length towards the apex, hairs on the last segment quite long. Legs brownish-black; all pile and hairs black; pulvilli luteous. Wings with a brown infuscation on the basal half; the infuscation is paler on the costal side of the first and second basal cells; yellow at the tip of the auxiliary vein; second vein with bristly hairs from the base to the origin of the third vein; anterior crossvein short and straight, fig. 6.

*Female*.—Very similar to the male except the eyes are broadly separated and the brown on the second segment covers nearly the basal half.

Length, 11 mm., both sexes.

Described from four specimens—two males and two females.

Type locality, Miami, Florida.

*Type*.—Male, allotype, female. Cat. No. 26200 U. S. N. M.

The larvae were collected March 3, 1917 by Dr. T. E. Snyder at Miami, Florida. They were in the moist spongewood at the base of a paw-paw tree (*Carica papaya*) where the sap was fermenting, due to frost injury.

Larvae pupated May 3 and 4, 1917.

Two males and two females emerged June 1, 1917, at Falls Church, Virginia, Hopkins U. S. No. 14993.

*Larva*.—(Fig. 1.) Opaque, long, nearly cylindrical, slightly flattened, pale luteous yellow. Mouth parts suctorial. No definite segmentation. Numerous transverse wrinkles. Surface covered with a fine, nearly microscopic, pale yellow pubescence; along the lateral edges are small processes solid at the base terminating into three hair-like projections. Across the anterior end and down a short distance on each side, the surface is covered with short, brown, chitinous spines. Anterior spiracles are extremely small, brown, cylindrical, tapering slightly towards their apex (too small to be used for determination). Antenna (fig. a) are pale yellowish white with a single basal joint which is bifid and widely separated at the apex; each antennae is composed of a large, cylindrical joint, slightly longer than its diameter with a broad, transverse, yellowish-brown band in the center; at the apex are two small thimble-like projections; the inner one is shorter and has a very small, round tubercle at its apex. The last segment with two, long, cone-like projections on the outer posterior edge and the penultimate segment has four, shorter, cone-like projections on outer posterior edge. Posterior spiracles are faintly shining, dark red, tapering very slightly towards the apex; a transverse suture near the base. Spiracles are composed of two halves (the right half drawn, fig. 1 b) each half has near its inner side, a large, nearly round button with a rectangular depression in the middle and a series of narrow wrinkles radiating towards the outer edge; there are four sinuous spiracles to each plate composed of broad, yellow lines or markings on the surface; the balance of the plate is deep reddish to black near the edge. There are seven pairs of ampullae; the two anterior pairs are more widely separated transversely; the surface of these ampullae is covered with numerous, short, brown, chitinous spines.

Length: 20 mm.; width, 4 mm.

*Pupa*.—(Fig. 2.) Very pale, dull, yellow, with the surface completely covered with a fine, microscopic, yellow pubescence. It is cylindrical, tapering slightly towards caudal end and the cephalic end truncate. Across the cephalic end are three short rows of brown, short, chitinous spines. Anterior spiracles are extremely small, cylindrical; antero-dorsal spiracles are at the upper angle of the pupa, they are separated by a space equal to twice the length of one spiracle; each spiracle is dark, yellowish-red, shining, slightly turned upward; front surface bare, the upper and lateral surface with numerous, large, round tubercles; the base is entirely encircled with very fine, granular tubercles (fig. 2 c); (the spiracles do not always protrude far enough to show all of this fine granular surface) at the lower edge of the cephalic end are three large wrinkles covered with brown chitinous spines, in the middle of these wrinkles is where the mouth parts are retracted. The ventral surface is flat with several small rows of brown chitinous spines, which are the remains of the ampullae of the larva. Posterior spiracles protrude about 1.5 mm., the details are the same as in the larva.

Length, 10 mm.; diameter, 4.5-5 mm. at front end.

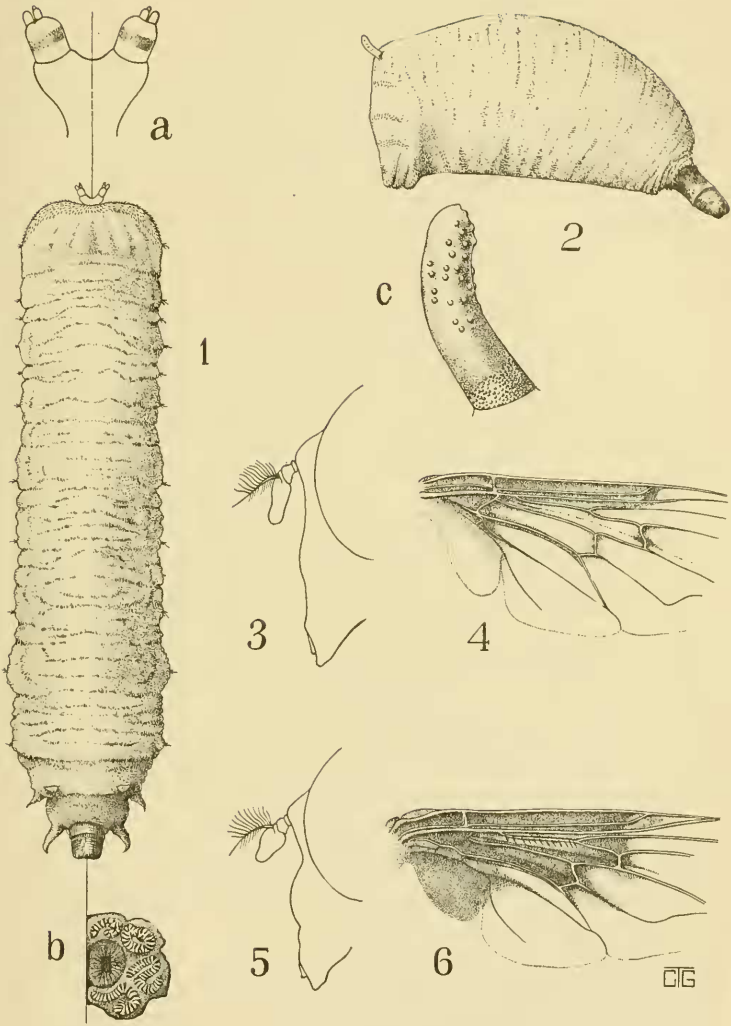
#### EXPLANATION OF PLATE.

(Drawings by C. T. Greene.)

Fig. 1 *Volucella nigra* Greene, larva, dorsal view.

“ 1 a. “ “ “ antennae of larva.

“ 1 b. “ “ “ posterior spiracle, right half drawn.



GREENE—VOLUCELLA NIGRA

- Fig. 2. *Volucella nigra* Greene, pupa, lateral view.  
 " 2 c. " " " antero-dorsal spiracle, lateral view.  
 " 3. " *anna* Williston, lateral view of face.  
 " 4. " " " portion of wing.  
 " 5. " *nigra* Greene, lateral view of face.  
 " 6. " " " portion of wing.

### A NEW MACROCENTRUS REARED FROM THE STRAWBERRY LEAF-ROLLER (HYMENOPTERA, BRACONIDAE).

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This new parasite is described at this time so as to make the name available for a forthcoming article on the strawberry leaf roller (*Ancylis comptana*).

#### *Macrocentrus ancylivora*, new species.

*Female*.—Length, 4.5 mm. Length of ovipositor (beyond the end of the abdomen) 5.5 mm.; length of anterior wing, 4 mm. Clypeus truncate; face shining, with distinct, widely separated setigerous punctures; antennae 44-jointed; scutum, prescutum, scutellum polished, impunctate; notauli and their posterior projection foveolate; the suture in front of the scutellum broad and with a median longitudinal ridge; propodeum shining basally, without distinct sculpture, posterior portion with irregular transverse rugae on a slightly granular surface; mesepisternum polished, with a few widely scattered setigerous punctures; the distance between the spiracles of the first tergite distinctly greater than the distance from one spiracle to the base of the tergite; at the base of the first tergite a broad, shallow excavation which extends beyond a line drawn tangent to the spiracles and is bounded laterally by distinct ridges; first tergite with fine, rather regular longitudinal striae; second tergite and base of the third with fine longitudinal aciculations which are deeper and better defined at the base of the second tergite; lateral depressed area of the second tergite polished and extending a short distance beyond the middle; nervellus post-furcal by a distance approximately equal to its length. Ferruginous; interocellar area black; flagellum dark piceous; wings hyaline, strongly iridescent; venation pale brown; stigma testaceous with the anterior margin brown.

*Male*.—Length, 3.5 mm. Length of anterior wing, 2.75 mm. Agrees with above description of the female except punctures on the face and mesepisternum are more widely separated and the sculpture of the tergites is finer. Antennae 42-jointed.

Paratypes show very little variation. A few of the males have the apical tergites piceous. The antennae of the males vary from 42 to 44 joints; those of the female from 44 to 48 joints.

*Type-locality*.—Riverton, New Jersey. Described from eleven females (one type) and eight males (one allotype) under Chittenden number 6800<sup>01</sup>, which were reared July 2-8, 1920, from the larvae of *Ancylis comptana* by D. E. Fink.

*Type*.—Cat. No. 26534, U. S. N. M.